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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/820,556 | 04/08/2004 | Oscar Ming Kin Law | 00100.04.0002 | 8355 |

29153 7590 09/20/2006

ATI TECHNOLOGIES, INC.
C/O VEDDER PRICE KAUFMAN & KAMMHOLZ, P.C.
222 N.LASALLE STREET
CHICAGO, IL 60601

EXAMINER

TRA, ANH QUAN

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2816

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/820,556

Applicant(s)

KIN LAW, OSCAR MING

Examiner

Quan Tra

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/25/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to the amendment filed 7/25/06. The allowable subject matters of claims 2-6, 11-13 and 16-23 have been withdrawn. A new ground of rejection is introduced.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 16-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Miyazaki et al. (USP 6774705).

As to claim 16, Miyazaki et al.'s figure 14 shows an adaptive supply voltage and body bias apparatus comprising: a master controller (OP and DEC) operative to receive an operation state value, the master controller operative to generate a supply voltage indicator (CMD 12) and a body bias indicator (CMD 13) based on the operation state value (figure 2); a dynamic voltage supplier (VDDGEB) operably coupled to the master controller, the dynamic voltage supplier operative to receive the supply voltage indicator; an adaptive body biaseer (VBBGEN) operably coupled to the master controller, the adaptive body biaseer operative to receive the body bias indicator; a plurality of computing devices (figure 18), each of the computing devices having one of a plurality of threshold voltages, the plurality of computing devices operative to receive a supply voltage from the dynamic voltage supplier and a bias voltage from the adaptive body biaseer; a frequency monitor (CMP) operably coupleable to the plurality of computing

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devices, the frequency monitor operative to receive an output frequency indicator from at least one of the plurality of computing devices.

As to claim 17, figure 14 shows that the frequency monitor generates a frequency offset value based on a comparison of the output frequency indicator and a reference frequency indicator (REF).

As to claim 18, figure 14 shows that the frequency offset value is provided to the master controller (OP and DEC), the master controller generating a second supply voltage indicator and a second body bias indicator in response to the frequency offset value and the operation state value, the master controller operative to provide the second supply voltage indicator to the dynamic voltage supplier and operative to provide the second body bias indicator to the adaptive body bias circuit.

As to claim 19, figure 18 shows that the plurality of computing devices operative to receive a second supply voltage from the dynamic voltage supplier and a second body bias voltage from the adaptive body biaser.

Claims 19-23 recite limitations similar to claims above. Therefore, they are rejected for the same reasons.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-15, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazaki et al. (USP 6774705) in view of Lin et al. (USP 6836166).

As to claim 1, Miyazaki et al.'s figure 14 shows all element of the claims except for each of the computing devices having a respective one of a plurality of different threshold voltages, and each of the plurality of computing devices being operative to receive a supply voltage from the dynamic voltage supplier; the plurality of computing devices being operative to receive at least one body bias voltage from a body biase. However, Line et al. teaches circuit having plurality of computing devices (TCD and TFD) each having different threshold. The advantage of using plurality of different threshold computing devices is for generating more precise signal. Therefore, it would have been obvious to one having ordinary skill in the art to add lower threshold computing devices to Miyazaki et al.'s figure 18 for the purpose of generating more precise signal. It is noted that the Lin et al.'s computing devices are controlled by two different signals. Therefore, the modified Miyazaki et al.'s computing devices are also controlled by two different sets of signals.

Claims 2-15, 24 and 25 recite similar limitations of claims 16-23. Therefore, the combination of Miyazaki et al and Lin et al. references also meets the limitations of claims 2-15, 24 and 25.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quan Tra whose telephone number is 571-272-1755. The examiner can normally be reached on 8:00 A.M.-5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Quan Tra', with a stylized, flowing script.

QUAN TRA
PRIMARY EXAMINER
ART UNIT 2816

September 12, 2006